

CLAIMS

1. A recombinant *Haemophilus* adhesion and penetration protein.
2. A recombinant *Haemophilus* adhesion and penetration protein according to claim 1 which has a sequence homologous to that shown in Figure 6.
3. A recombinant *Haemophilus* adhesion and penetration protein according to claim 1 which has the sequence shown in Figure 6.
4. A recombinant nucleic acid encoding an *Haemophilus* adhesion and penetration protein.
5. The nucleic acid of claim 3 comprising DNA having a sequence homologous to that shown in Figure 6.
6. An expression vector comprising transcriptional and translational regulatory nucleic acid operably linked to nucleic acid encoding an *Haemophilus* adhesion and penetration protein.
7. A host cell transformed with an expression vector comprising a nucleic acid encoding an *Haemophilus* adhesion and penetration protein.
8. A method of producing an *Haemophilus* adhesion and penetration protein comprising:
 - a) culturing a host cell transformed with an expressing vector comprising a nucleic acid encoding an *Haemophilus* adhesion and penetration protein; and

b) expressing said nucleic acid to produce an *Haemophilus* adhesion and penetration protein.

5 9. A vaccine comprising a pharmaceutically acceptable carrier and an *Haemophilus* adhesion and penetration protein for prophylactic or therapeutic use in generating an immune response.

10. A vaccine according to claim 8 wherein said *Haemophilus* adhesion and penetration protein has a sequence homologous to that shown in Figure 6.

10 11. A monoclonal antibody capable of binding to an *Haemophilus* adhesion and penetration protein.

12. A method of treating or preventing *Haemophilus influenzae* infection comprising administering the vaccine of claim 9 or 10.